Navy Environmental Quality Fact Sheet

Do you apply paint to facilities or structures?

Would you like to improve this process in the following areas?

- ***Meet environmental compliance regulations***. Reduce Volatile Organic Compound (VOC) air emissions and hazardous paint waste disposal. Media areas are air and hazardous waste programs.

- ***Improve workers' safety and health***. Reduce exposure to VOCs released from paints.

- ***Increase productivity***. Reduce the time required to manage environmental compliance.

- ***Save money***. Reduce environmental compliance management costs. Reduce hazardous waste disposal costs.

Military Family Housing Unit pianted with Low VOC Architectural Coatings

VOC content for different paint products varies significantly within any given group of paints (interior alkyd, interior latex, high performance latex, low-odor/VOC interior latex, etc.). Selecting the product with the desired performance and the lowest VOC content within the selected group may result in reduction of VOC emissions by as much as 50%. Additionally, selecting the most environmentally friendly paint group that meets the performance requirements may further reduce VOC emissions. For example, selecting a low-odor/VOC interior latex rather than an interior alkyd for a low wear interior wall may reduce VOC emissions by more than 90% and eliminate solvent waste generated from equipment cleaning. Conversely, selecting a interior latex rather than an interior alkyd for high wear surfaces such as interior doors and trim may increase emissions due to shorter coating life and recoating requirements. Care must be taken to be sure that performance characteristics are not compromised. A pilot project using this approach and conducted on military housing units at Vandenberg AFB demonstrated the potential to reduce VOC emissions by over five tons! ***Low VOC paints are available from a number of commercial suppliers, as well as the General Services Administration.***

How can you achieve these improvements?

Use low VOC architectural coatings.

How does this equipment work?

Low VOC paints are special formulations that contain less volatile solvents. These products can be used as direct replacements for higher VOC content paints.

How will this equipment save you money?

The cost of low VOC paints depends on the application and in most cases may be higher than traditional paints. However, paint procurement costs are typically only a fraction of total painting project costs. Money will be saved primarily due to reductions in labor used for hazardous material and hazardous waste management required for higher VOC paint .

Typical Process Flow Diagram

How can this method eliminate or reduce pollution?

Use of low Volatile Organic Compound (VOC) paints will result in reduction of VOC air emissions from architectural coatings. Implementation will result in the following pollution reductions:

- Reduction in VOCs released during paint application.
- Reduction in solvent use and resultant air emissions.

Which activities can benefit most from this method?

These products can be used for DOD structures, buildings and facilities that need protective coatings. Typical applications include:

- DOD housing units
- DOD hospitals and clinics
- Shore installation facilities

How can this method reduce regulatory compliance concerns?

This P2 method uses paints with significantly lower VOC content than conventional solvent-based paints, thereby reducing air emissions. Implementation will result in the following regulatory compliance benefits:

- May help reduce facility-wide hazardous VOC emissions below applicable major HAP source thresholds.
- May reduce or eliminate local VOC compliance requirements in ozone nonattainment and maintenance areas.
- May generate emission reduction credits to offset emission increases under New Source Review and Prevention of Significant Deterioration; if credits meet certain criteria, they may qualify for local emission trading/banking programs.

Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Information regarding environmental attributes and performance characteristics of various paint types and products is available from Master Painters Institute. **Web**: (http://www.paintinfo.com/mpi/approved/index.htm). Information on Safer Paints, Cleaning and other Chemical Products available through the General Services Administration can be found on the GSA web site. **Web:** (http://apps.fss.gsa.gov/environ/safer-chemicals.cfm).

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